

REMARKS

Applicant has filed a Request for Continued Examination along with the present Amendment pursuant to 37 C.F.R. §1.114. The undersigned and all attorneys associated with Customer No. 00832 are Attorneys of Record further to the Power of Attorney filed on December 18, 2006 in the present application.

Claims 37-79 are pending and have been added. Previously withdrawn Claims 1-32, as well as prior Claims 33-36, have been canceled. No claims have been allowed.

Applicant has amended the specification at page 5, lines 18 and 19 to correct a typographical error.

The surfactants of Claims 49-52, 64-67, and 75-78 are supported in the specification as originally filed at page 5, lines 5-19. With respect to Claims 49, 64, and 75, several amine oxides are disclosed at page 5, lines 5-11. With respect to Claims 50, 65, and 76, the disclosed "BIO-TERGE PAS-8S" surfactant at page 5, lines 18 and 19 is an anionic surfactant of a sulfate or a sulfonate of oils and fatty acids. With respect to Claims 51, 66, and 77, the disclosed "Neodol" surfactants at page 5, lines 18 are non-ionic ethoxylated alcohols. With respect to Claims 52, 67, and 78, several diphenyl sulfonates and diphenyl sulfonate derivatives are disclosed at page 5, lines 12-17.

The Examiner rejected prior Claims 33-36 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,320,805 to Kramer et al. ("Kramer et al. '805"), and rejected prior Claims 33-35 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0078178 to Ramirez et al. ("Ramirez et al. '178").

New independent Claim 37 calls for a method of cleaning and disinfecting a surface or an item of equipment, including the steps of: providing a cleaning kit including a first container comprising a peroxide; and a second container comprising an alkaline component capable of raising the pH of the contents of the first and second containers into the alkaline range; and applying the contents of the first and second containers to at least one of the surface and the item of equipment.

The present inventor has discovered that providing a cleaning kit including a first container comprising a peroxide and a second container comprising an alkaline component is useful for maintaining the stability of each of the foregoing components until such time as same may be combined to generate an alkaline cleaning composition. The contents of the containers

are applied to a surface or an item of equipment to be cleaned. For example, the contents of the containers may be applied by mixing the contents at or about the time of application, or by applying the contents sequentially.

Kramer et al. '805 fails to disclose the presently-claimed method. The chemical compositions disclosed in Kramer et al. '805 principally include (1) "an alkaline water-soluble salt having hydrogen peroxide of crystallization" and (2) "a positively charged phase-transfer agent". (col. 3, line 22 through col. 4, line 66). Although the cleaning compositions may be provided as "creams, bulk powders, tablets, soaps, foams, gels, aerosols, and solutions", etc. (col. 3, lines 63-65), Kramer et al. '805 does not disclose a method including the steps of providing a cleaning kit including a first container comprising a peroxide and a second container comprising an alkaline component, and applying the contents of the first and second containers to at least one of the surface and an item of equipment. Rather, the chemical compositions disclosed in Kramer et al. '805 are *single solutions* which principally include both the peroxide salt and the positively charged phase-transfer agent, as well as any other additives.

Further, one of ordinary skill in the art, in considering the teachings of Kramer et al. '805 with no knowledge of the presently claimed invention, would have no reason to modify the compositions of Kramer et al. '805, such as by providing a kit including the principal components of the Kramer et al. '805 compositions separately in first and second containers, and then applying the contents of the containers to a surface or item of equipment to be cleaned. For example, Kramer et al. '805 does not teach or suggest to one of ordinary skill in the art that the single solution compositions disclosed therein are unstable, but rather, that "[t]he compositions are, in fact, non-volatile". (col. 1, lines 55 and 56).

For the foregoing reasons, Applicant respectfully submits that new independent Claim 37, as well as the claims which depend therefrom, are not anticipated by, nor are obvious in view of, Kramer et al. '805.

Ramirez et al. '178 also fails to disclose a method of cleaning a surface, including the steps of providing cleaning kit including a first container comprising a peroxide and a second container comprising an alkaline component, and applying the contents of the first and second containers to at least one of the surface and an item of equipment.

By contrast, Ramirez et al. '178 discloses cleaning solutions which, as set forth in paragraphs [0018] to [0022] thereof, include (1) at least one surfactant; (2) at least one active oxygen releasing compound such as hydrogen peroxide, (3) at least one builder, and (4) at least one diluent selected from water, deionized water, and mixtures thereof. Similar to Kramer et al. '805, the compositions of Ramirez et al. '178 are in the form of *single solutions*, and Ramirez et al. '178 fails to disclose a method including the presently claimed steps. In each working Example of Ramirez et al. '178, single solutions are prepared which include the four components set forth at paragraphs [0018] to [0022].

Further, one of ordinary skill in the art, without knowledge of the presently claimed invention, would have no incentive or motivation based on the teachings of Ramirez et al. '178 to provide a cleaning kit including a first container comprising a peroxide and a second container comprising an alkaline component and applying the contents of the first and second containers to at least one of the surface and the item of equipment in view of the disclosure of Ramirez et al. '178 that the single solution cleaning compositions prepared in the working Examples therein are stable when subjected to accelerated stability testing. (*see* paragraphs [0061] and [0064]).

For the foregoing reasons, Applicant respectfully submits that new independent Claim 37, as well as the claims depending therefrom, are not anticipated by, nor are obvious in view of, Ramirez et al. '178.

New independent Claim 57 calls for a method of cleaning and disinfecting a surface or an item of equipment, including the steps of: providing a cleaning composition in dry form, the cleaning composition consisting essentially of a peroxide and an alkaline component, the alkaline component capable of raising the pH of the cleaning composition into the alkaline range; and applying the cleaning composition in dry form to at least one of the surface and the item of equipment.

Ramirez et al. '178 fails to disclose the foregoing method, as recognized by the Examiner with respect to prior Claim 36. (Office Action dated October 6, 2006, ¶10). By contrast, the cleaning compositions of Ramirez et al. '178 are applied as liquids and, as set forth in paragraphs [0018] to [0022] include "at least one diluent selected from the group consisting of water, deionized water, and mixtures thereof." Further, in each working Example of Ramirez, a cleaning composition is formulated in liquid form. Although Ramirez et al. '178 discloses that a dry composition may be formed, Ramirez et al. '178 teaches that such dry composition is

dissolved in water, deionized water, or a mixture thereof prior to use (*See* Paragraphs [0033] and [0059]). There is no teaching or suggestion in Ramirez et al. '178 of a method of cleaning a surface, including the steps of providing a cleaning composition in dry form, and applying the cleaning composition in dry form to the surface to clean the surface.

Kramer et al. '805 fails to disclose a cleaning composition consisting essentially of a peroxide and an alkaline component. The Examiner is correct that the transitional phrase "consisting essentially of" is open-ended with respect to the inclusion of unspecific ingredients which do not materially affect the basic and novel characteristics of the composition. (Office Action dated October 6, 2006, ¶6). However, as discussed below, the "positively charged phase-transfer agent" of Kramer et al. '805 is properly excluded by the transitional phrase "consisting essentially of" in new independent Claim 57.

As discussed above, the chemical compositions of Kramer et al. '805 principally include (1) "an alkaline water-soluble salt having hydrogen peroxide of crystallization" and (2) "a positively charged phase-transfer agent". The positively charged phase-transfer agent may be a phosphonium salt such as t-butyl phosphonium iodide, a sulfonium salt such as tributyl sulfonium chloride, or a quaternary ammonium salt, as set forth at col. 4, lines 16-19 of Kramer et al. '805. "[P]referred positively charged phase-transfer agents are quaternary ammonium salts having a chain of carbon atoms of ca. 4 to 30, preferably ca. 6 to 40, and most preferably ca. 8 to 25" which have "lipophilic character" (col. 4, lines 22-27), *i.e.*, the compounds include a hydrophilic carbon chain with a lipophilic end.

As discussed at col. 4, lines 45-66 of Kramer et al. '805, the positively charged phase-transfer agent functions to extract a proton from hydrogen peroxide to form a hydrogen peroxide ion/quaternary ammonium ion pair or complex which has the requisite "lipophilic character" to be able to pass from an aqueous phase into an oil or organic phase to exert both disinfecting and sterilizing effects, as discussed at col. 4, lines 16-66. The inventors in Kramer et al. '805 presumably chose to use the term "positively charged phase-transfer agent" in view of this specific chemical activity.

Notably, Kramer et al. '805 teaches one of ordinary skill in the art that the "quaternary ammonium hydroperoxide phase-transfer complex [] is *critical* to the [] invention" (col. 5, lines 7-10) (emphasis added), and that "an *essential element* in the invention is to render the phase-

transfer ion-pair soluble in water and in lipids, rendering the ion-pair properties which do not exist in the individual components". (col. 5, lines 20-23) (emphasis added).

In contrast to the cleaning compositions of Kramer et al. '805, which include "a positively charged phase-transfer agent" for forming a lipophilic complex ion pair having a hydrophilic carbon chain with a lipophilic end, as discussed above, the cleaning composition claimed in new independent Claim 57 is based on a peroxide and an alkaline component which does not form lipophilic complex ion pairs with the peroxide. Also, the cleaning composition claimed in new independent Claim 57 does not clean and disinfect based on a lipophilic, phase transfer effect, but rather cleans and disinfects based on the release of oxygen by the peroxide.

Thus, Kramer et al. '805 fails to disclose a cleaning composition consisting essentially of a peroxide and an alkaline component as called for independent Claim 57, and one of ordinary skill in the art, in considering the overall teachings of Kramer et al. '805 with no knowledge of the presently claimed invention, would have no incentive or motivation to modify the cleaning compositions of Kramer et al. '805 to form a cleaning composition which does not include the positively charged phase-transfer agent disclosed by Kramer et al. '805 as "critical" and "essential" to the invention therein.

For the foregoing reasons, Applicant respectfully submits that new independent Claim 57, as well as the claims which depend therefrom, are not anticipated by, nor are obvious in view of, either Kramer et al. '805 or Ramirez et al. '178, either alone or in combination.

New independent Claim 71 calls for a method of cleaning and disinfecting a surface or an item of equipment, including the steps of: providing a cleaning composition in dry form, the cleaning composition consisting essentially of a peroxide; and applying the cleaning composition in dry form to at least one of the surface and the item of equipment.

In one embodiment, as discussed in the present specification as filed at page 6, lines 10-15, a cleaning composition may be applied in dry form as a peroxide, for example, in the form of sodium percarbonate, also known as sodium carbonate peroxyhydrate.

As discussed above with respect to new independent Claim 57, Ramirez et al. '178 fails to disclose a method including the steps of providing and applying a cleaning composition in dry form. As also discussed above with respect to new independent Claim 57, Kramer et al. '805 fails to disclose a cleaning composition consisting essentially of a peroxide, but rather discloses a

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cleaning composition including a positively charged phase-transfer agent disclosed by Kramer et al. '805 as "critical" and "essential" to the invention therein.

For the foregoing reasons, Applicant respectfully submits that new independent Claim 71, as well as the claims which depend therefrom, are not anticipated by, nor are obvious in view of, either Kramer et al. '805 or Ramirez et al. '178, either alone or in combination.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested. Specifically, Applicant respectfully submits that the application is in condition for allowance and respectfully requests allowance thereof.

In the event Applicant has overlooked the need for an additional extension of time, payment of fee, or additional payment of fee, Applicant hereby petitions therefore and authorizes that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

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Should the Examiner have any further questions regarding any of the foregoing, the Examiner is respectfully invited to telephone the undersigned at (260) 424-8000.

Respectfully submitted,



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Name of Registered Representative



Signature

January 4, 2007

Date